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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,918	04/14/2000	Kiyoshi Taguchi	10059-350US	8909

570 7590 01/31/2002

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PHILADELPHIA, PA 19103

EXAMINER

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 01/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

549918

Applicant(s)

Taguchi et al

Examiner

Langel

Group Art Unit

1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 1-10-02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-9 is/are pending in the application.
- ☐ Of the above claim(s) 7-9 is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-6 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2 and 4
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

Art Unit 1754

Applicant's traverse of the restriction requirement has been considered, but is not deemed persuasive. Applicant's argument, that applicant does not necessarily agree with the restriction requirement or the Examiner's arguments in support thereof, is not convincing, since applicant has not specifically pointed out why the requirement is erroneous. Accordingly the restriction requirement is made FINAL.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over British 2,240,284. British '284 discloses a catalytic system for the production of synthesis gas by reforming hydrocarbon with carbon dioxide, wherein the catalyst consists of a metal from platinum group metals supported on a support comprising aluminum oxide, zirconium oxide and/or cerium oxide. (See page 2, line 27 to page 3, line 20.) British '284 teaches at page 3, lines 21-24 that the catalyst preferably has a surface area between 10 and 200 m<sup>2</sup>/g. The means for feeding in the main

Art Unit 1754

reactants comprising carbon dioxide and light hydrocarbons to the reactor of British '284 is considered to constitute "a reformed gas feeding part for feeding a reformed gas containing at least a hydrogen gas and water vapor" as recited in applicant's claims. The catalyst of the reactor of British '284 would inherently be located downstream of such means for feeding in the reactants. The difference between the apparatus disclosed by British '284, and that recited in applicant's claims, is that British '284 does not specifically disclose that the platinum group metal should be platinum. It would be prima facie obvious to employ platinum as the platinum group metal in the catalyst of British '284, since it is well-known that platinum is a platinum group metal, and British '284 merely "prefers" that the platinum group metal be rhodium, ruthenium or iridium. It is well-settled that non-preferred embodiments nevertheless constitute embodiments upon which a case of prima facie obviousness may be based.

Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is indefinite as to what the metes and bounds would be of a "reformed gas feeding 'part'".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (703) 308-0248. The examiner

Serial No. 09/549,918

-4-

Art Unit 1754

can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2351.

WAL:cdc

January 28, 2002

*Wayne A. Langel*  
*Wayne A. Langel*  
*Primary Examiner*  
*GAU 1754*